

Scientists at inStem found mutations in enzyme involved in learning and memory in the brain

By Dr Bilqeesa Bhat



Dr Aditi Bhattacharya,
Centre for Neurodevelopmental
Synaptopathies (CNS) , inStem

Dr. Aditi Bhattacharya, the lead investigator at Institute for Stem Cell Biology and Regenerative Medicine (inStem), Bengaluru, through a long-standing international collaboration with New York University and Cold Spring Harbor Laboratories, USA, has uncovered altered activity of enzyme called p70 S6 Kinase1. Such change in p70 S6 kinase 1 activity doesn't respond to small molecule drugs targeting the functional changes in developing neurons. Results of her work scratch the surface on a class of mutations in complex disorders which aren't in focus of researchers usually. Such influencing changes in enzymes activity cause severity in disease.

Dr. Aditi Bhattacharya at Department of Biotechnology's funded Centre for Neurodevelopmental Synaptopathies (CNS) has described a novel mutation in an important enzyme p70 S6 Kinase1 involved in learning and memory in the brain. This protein not only helps proper brain function, but, it is also important for heart, pancreas and muscle functioning. Such inherited mutation occurs in families where children have Autism Spectrum Disorders (ASD) and not in parents or unaffected siblings. These inherited mutations change certain cognitive abilities in the children with ASD. The work has been accepted for publication in the journal *Neurobiology of Learning and Memory* (May issue).

Contact Details:

sarina@instem.res.in